|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| <<5/19>> 會議記錄 | | | | | | | | | |
| 會議日期 | | 2014/5/19 | | | | | | | |
| 時間 | | 2014/5/19, 12:30~18:00 | | | | | | | |
| 地點 | | R440 | | | | | | | |
| 主持人 | | 劉宗瑋 | | | | | | | |
| 記錄者 | | 吳佳倫 | | | | | | | |
| 目的 | | 討論Homework and Class diagram | | | | | | | |
| 參與者 | | | | | | | | | |
| 姓名 | | E-mail | | | | | 角色 | | |
| 蔡宗翰 | | b99902066@ntu.edu.tw | | | | | 組長 | | |
| 林映孜 | | d98944002@ntu.edu.tw | | | | | 組員 | | |
| 范哲誠 | | d02922030@ntu.edu.tw | | | | | 組員 | | |
| 黃奕軻 | | b99902032@ntu.edu.tw | | | | | 組員 | | |
| 劉宗瑋 | | b99902100@ntu.edu.tw | | | | | 組員 | | |
| 呂俊宏 | | enricolu@gmail.com | | | | | 組員 | | |
| 吳佳倫 | | bingo4508@gmail.com | | | | | 記錄 | | |
| 會議議程 | | | | | | | | | |
| 1. Review homework (12:30~13:15) 2. Discuss project – Class diagram (13:15~18:00) | | | | | | | | | |
| 會議討論議題 | | | | | | | | | |
| (2014/5/13, 16:20~19:05 @ R106)   1. Original Structure   https://raw.githubusercontent.com/2014-sed-team3/term-project/master/project/architecture/architecture512.png   1. Discussion: 2. 觸發活動的是Importer or Data Base？    * 都可以，使用者可以自己透過UI來控制 3. Graph 跟 Metric 系統要整合？    * Graph的功能分給 Database 跟 Metric, 從系統降級為Database 中的 public class (所有程式可以去看它) 4. UI 可以控制絕大部分的系統 (原Architecture圖沒有連接這個) 5. Data Base Requirement 討論    * R2.4, R2.6 要過濾兩次嗎？      + 是的，R2.4 ( Filter rows by derived restriction)之後，R2.6 Convert selected data to "Graph" structure 才會發生 6. 新版 Architecture      1. 畫 class diagram / 設計UI 分工：   Importer – 哲誠  GraphStorageManagement – 奕軻、佳倫  Metric – 宗瑋  Layout – 林映孜  UI – Eric   1. 整合   Architecture – 宗翰  (2014/5/15, 19:00 – 21:00 @R439)  1. Review Homework 10 [2hr]  According to requirements, our application design contained two main functionalities. The first is to recognize different type of tokens in RTF document given, so that corresponding routines which convert a RTF format token of specified type (e.g. paragraph and character) to another token of different format can be used properly. The second is the actual work to convert a RTF token, so that all converted tokens will compose a different format document (e.g. TeX). In initial design, both functions are coded in the same class, which is responsible for tokenizing a document, calling various convert routines, doing the actual convert work. To provide the first functionality, a switch statement invokes different routines (e.g. convertCharacter()) according to the token type. The second one is provided through many convertXXX() routines each of which generate a same type token but of different format according to the wanted document format. During the refactoring process, we all agreed on the encapsulation of the second functionality which included may convert routines into a converter class per document format. However discussion that the switch statement should be placed in converter class or reader class couldn’t reach consensus. Both solutions would be presented probably.  “Pros and Cons of process”  Pros: quality ensurance in specific enviroment  經驗傳承  Cons: lack of flexibility  cost of maintenance    (2014/5/19, 12:30 – 18:00 @R440)  1. 討論Importer -  1. UI把setting過的資料傳遞給ImporterSetting，Importer去ImporterSetting抓資料。  2. Importer遇到的問題：  a.從各種Social Media抓下來的資料結構不一樣(如Facebook、Youtube)，因此可以產生各式  各樣的Layout，但整合上有困難。  b.單一個Social Media抓下來的資料會產生很多table，如果要整合所有Social Media抓下來  的資料處存在Database裡，許多資料會被捨棄，或者是需要容量較大的處存空間。  3. Importer 目前解決方案:  a.簡單版：實作import每種Social Media，限制從每個Social Media抓下來的資料量，  產生較少的Layout。  b.深入版：深入一種Social Media，並且產生出許多不同的Layout。  C:\Users\lambert\Downloads\Importer.png   1. DB 宣告一個db的reference, 在constructer connect to db   https://raw.githubusercontent.com/2014-sed-team3/term-project/master/project/architecture/Layout_ClassDiagram.png   1. GraphStorageManagement   https://raw.githubusercontent.com/2014-sed-team3/term-project/master/project/architecture/GraphStorageManagement.png   1. Metric      1. Architecture based on Designed Class Diagram      * Data Importer  |  |  | | --- | --- | | Functional Requirement | | | R1.1 | UI can save settings in ImporterSettings | | R1.1.1 | UI can select SNS which can be fetched in ImporterSettings | | R1.1.2 | UI can select url/target/user which can be fetched in ImporterSettings | | R1.1.3 | UI can select items/columns which can be fetched in ImporterSettings | | R1.2 | Importer can import data from selected SNS | | R1.2.1 | Importer can import data from Facebook | | R1.2.2 | Importer can import data from Twitter | | R1.2.3 | Importer can import data from Youtube | | R1.2.4 | Importer can import data from Flickr | | R1.3 | Importer can load data from file(graphML) | | R1.4 | Core can load settings and execute with corresponding concrete importer. |   GraphStorageManagement   |  |  | | --- | --- | | Non-Functional Requirement |  | | R2.1 | Memory usage should be more efficient than original NodeXL | | Functional Requirement |  | | **R2.2** | Table Design | | **R2.2.1** | Design Table Naming method | | **R2.2.2** | Design Different Social Media table schema & primary key | | **R2.2.2.1** | Facebook Schema | | R2.2.3 | Design Index method | | R2.3 | Table Function | | R2.3.1 | List Tables | | R2.3.2 | Add Table | | R2.3.3 | Delete Table | | R2.3.4 | Select Table | | R.2.3.5 | UI Design | | R2.4 | Filter rows by derived restriction | | R2.5 | Save graph structure to DB(new table) | | R2.6 | Convert selected data to "Graph" structure according to Settings | | R2.6.1 | UI can select which column of the data to be used as vertices and save them in Settings | | R2.6.2 | User can Match an (weighted) edge according to relationship between vertices (select edge) and save in Settings |  * Metric  |  |  | | --- | --- | | R4.1 | Calculate graph metrics according to Settings and generate result. | | R4.1.1 | Compute ClosenessCentrality of each vertex in a graph | | R4.1.2 | Compute BetweennessCentrality of each vertex in a graph | | R4.1.3 | Compute EigenvectorCentrality of each vertex in a graph | | R4.1.4 | Compute PageRank of each vertex in a graph | | R4.1.5 | Compute Max/Avg GeodesicDistances of a graph | | R4.1.6 | Compute Modularity of a graph | | R4.1.7 | Generate clusters of a graph by Girvan-Newman algorithm | | R4.1.8 | Generate communities of a graph by Clauset Newman Moore algorithm | | R4.1.9 | Identify all Cliques of a graph | | R4.1.10 | Calculate clusters using the Wakita-Tsurumi algorithm | | R4.1.11 | Calculate in/out degree of each vertex in a graph | | R4.1.12 | Identify all strongly connected components of a graph | | R4.1.13 | Calculate intergroup edges of any pair of group and within a group | | R4.1.14 | Calculates the reciprocated vertex pair ratio for each of the graph's vertices | | R4.1.15 | Generate a subgraph according to a specified vertex | | R4.1.16 | Partition the graph into motifs | | R4.2 | UI can select some algorithm to calculate graph metrics and save in Settings. |  * Graph Representation  |  |  | | --- | --- | | Non-Functional Requirement |  | |  | Unify the Rectangle to the same type: System.Windows.Rect (WPF) | | Functional Requirement |  | | R5.1 | NodeXL has a view to show graph on it | | R5.1.1 | To show graph on the view, we first layout the graph then draw them on the view | | R5.2 | When layouting, we specify the location of each vertex in the graph according to the layout context and layout type. | | R5.2.1 | The types of layouts includes: CircleLayout,GridLayout, Random Layout, SinusoidLayout, etc. | | R5.2.2 | The layout type is selected by the user | | R5.2.3 | We can only plot one type of layout for a graph at one time. | | R5.2.4 | It is easy to add new types of layouts. | | R5.2.5 | The layout context describe the width,height of the layout view. | | R5.2.6 | The location of each vertex contains the x,y coordinates | | R5.3 | When drawing graph, we draw the vertices and edges in the graph on the view according the layout context and the properties of vertices and edges | | R5.3.1 | The vertices and edge in the graph can be draw with different color, border | | R5.3.2 | The used color are depend on user's selection | | R5.4 | The user is able to Export current layout view into image file |  * UI  |  |  | | --- | --- | | Functional Requirement |  | | R6.1 | There are 3 section in the application : 1. Toolbar on the top. and below the toolbar - 2. Table on the left 3. Graph on the right | | R6.1.1 | User can choose to load data from file, database or SNS importer. | | R6.1.2 | After the data is loaded, user can choose which column of the data to be vertices and input restrictions to filter rows. | | R6.1.3 | User can choose to export the data to image file or graphML file (need to specify the file path) | | R6.1.4 | User can select multiple metric to be computed at once (check box) | | R6.1.5 | Once the metrics are computed, user can use one of the metrics to autofill columns(color, width, style, opacity, visibility, label) | | R6.1.10 | There is a dropdown list widget, which includes the layout that user can choose. | | R6.1.6 | User can select a layout from dropdown list. | | R6.1.7 | User can refresh the graph | | R6.1.8 | User can Show/hide table | | R6.1.9 | User can Show/hide graph |  * IIR  |  |  | | --- | --- | | **IIR1** | **Importer read setting info from UI** | | **IIR2** | **Imorted data is stored to DataBase** | | **IIR3** | **Graph can ask data from DataBase** | | **IIR4** | **UI can ask Mertic to compute metrics** | | **IIR5** | **Layout can get data from Graph to show.** | | **IIR6** | **Layout can ask for setting info from UI.** | | **IIR7** | **After computated, Layout can notify UI to render the result.** | | **IIR8** | **Metric can ask data from Graph** | | IIR9 | UI can ask Importer to Import data and save in DB. | | IIR10 | UI can select which Metric to be calculated and save in settings. |  * OIR  |  |  | | --- | --- | | OIR1 | Importer use "SocialNetworkImporter" to get data from SNS | | OIR2 | DataBase use "SQLite" to save and fetch data. | | | | | | | | | | |
| Action Item後續處理項目 | | | | | | | | | |
| 編號 | 處理動作 | | | 負責人員 | | 處理期限 | | 狀態 | 備註 |
|  | WBS draft | | | 黃奕軻 | | 4/1 | | **Closed 4/1** | 蔡宗翰 review |
|  | 提供Github public key | | | 全員 | | 4/1 | | **Closed 4/1** |  |
|  | 新版WBS | | | Eric | | 4/4 | | **Closed** |  |
|  | 加入Implementation的詳細內容 | | | 全員 | | 4/7 | | **Closed** | On google doc |
|  | 繪製High Level Architecture | | | Eric | | 4/8 | | **Closed** |  |
|  | 上傳前次的 Meeting Minutes | | | 吳佳倫 | | 4/8 | | **Closed 4/1** |  |
|  | WBS—分析、設計階段認領 | | | 全員 | | 4/7 | | **Closed** |  |
|  | 設定 Github key, 並確認成功上傳至少一次 | | | 全員 | | 4/8 | | **Closed** | 奕軻 review |
|  | Homework6 | | | 吳佳倫 | | 4/8 | | **Closed 4/08** |  |
|  | Check all Commit | | | 黃奕軻 | | 4/8 | | **Closed 4/08** |  |
|  | Review System Architecture | | | 全員 | | 4/14 | | **Closed 4/14** | 映孜review |
|  | Code Survey | | | 全員 | | 4/14 | | **Closed 4/14** |  |
|  | Terminology and Naming | | | 呂俊宏 | | 4/14 | | **Closed 4/14** |  |
|  | Homework 7-1 | | | 蔡宗翰 | | 4/15 | | **Closed 4/15** |  |
|  | Homework 7-2 | | | 呂俊宏 | | 4/15 | | **Closed 4/15** |  |
|  | Homework 8-1 | | | 林映孜 | | 4/21 | | **Closed 4/21** |  |
|  | Homework 8-2 | | | 劉宗瑋 | | 4/21 | | **Closed 4/21** |  |
|  | Homework 9-1 | | | 范哲誠 | | 4/28 | | **Closed 4/28** |  |
|  | Homework 9-2 | | | 廖尉棠 | | 4/28 | | **Closed 4/28** |  |
|  | User requirement | | | 全體 | | 4/28 | | **Closed 4/28** |  |
|  | System requirement | | | 全體 | | 5/4 | | **Closed 5/5** |  |
|  | Interface requirement | | | 全體 | | 5/5 | | **Closed 5/5** |  |
| 1. r | Homework 10 | | | 吳佳倫 | | 5/6 | | **Closed 5/5** |  |
|  | Refine System Architecture | | | 全體 | | 5/13 | | **Closed 5/12** |  |
|  | Presentation of Requirements & Architecture | | | 蔡宗翰 | | 5/6 | | **Closed 5/6** |  |
|  | Modifying requirement | | | 全體 | | 5/12 | | **Closed 5/12** |  |
|  | Homework 11 | | | 黃奕軻 | | 5/13 | | **Closed 5/12** |  |
|  | Re-assign duties for further works | | | 全體 | | 5/13 | | **Closed 5/13** |  |
|  | Homework 12 | | | 劉宗瑋 | | 5/12 | | **Closed 5/19** |  |
|  | Class Diagram | | | 全體 | | 5/19 | | **Ongoing** |  |
| 下次會議 | | | | | | | | | |
| 日期 | | | 時間 | | 地點 | | | | |
| 5/20 Tue. | | | 16:30 | | R104 | | | | |